

REMARKS

Favorable consideration and allowance are respectfully requested for Claims 1-11 in view of the following remarks.

Rejections under 35 U.S.C. § 102 (b)

The rejection of Claims 1-3 under 35 U.S.C. § 102(b) as allegedly anticipated by JP 63-270612 or RU 2073436 is respectfully traversed.

In order to establish anticipation under 35 U.S.C. § 102(b), all elements of the claim must be found in a single reference. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986), *cert. denied*, 107 S. Ct. 1606 (1987). In particular, as pointed out by the court in *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 220 USPQ 303, 313 (Fed. Cir. 1981), *cert. denied*, 469 U.S. 851 (1984), "anticipation requires that each and every element of the claimed invention be disclosed in a prior art reference." In the present case, JP 63-270612 clearly fails to anticipate or render obvious the claimed subject matter.

Claim 1 recites a homogeneous, boron-doped alkaline earth peroxide with a boron content of 0.5 to 5 weight percent and a peroxide content of about 75 weight percent or more, calculated based on the active oxygen content.

Japanese Patent Abstract No. JP 63-270612 does not disclose or suggest a boron compound. JP 63-270612 relates to an "oxygen supplier" in which a substance A is combined with a substance B and a substance C. Substance A is an alkaline earth peroxide. Substance B is magnesium sulfate, e.g., anhydrous, hexahydrated or less hydrated magnesium sulfate. Substance C is a basic

substance such as calcium hydroxide, calcium oxide or magnesium hydroxide. Substance B is not boron or a boron-containing compound. Because JP 63-270612 fails to disclose boron or a boron compound, much less a boron-doped alkaline earth peroxide, JP 63-270612 cannot anticipate Claim 1. Withdrawal of this grounds of rejection is respectfully requested.

Russian patent publication number 2073436 discloses a mixture consisting of 40-99.9% calcium peroxide and 0.1-60% boric acid that is added to water. However, the English abstract of the Russian reference fails to teach a homogeneous, boron-doped alkaline earth peroxide, as is presently claimed. The Russian publication merely discloses the addition of calcium peroxide and boric acid to water. A person of skill in the art would appreciate that such a liquid mixture, which can be used to keep cut flowers fresh, is not a doped composition as is claimed.

The doped peroxide of Claim 1 can be distinguished from a liquid mixture. As noted in the Office Action, the doped peroxide is homogeneous meaning that the doped peroxide is of uniform structure and composition. Further, as recited in the specification at page 4, lines 13-14, after combining the constituents used to form the doped peroxide, the water is evaporated and the reaction product is dried. There is no suggestion in the Russian publication of a homogeneous peroxide composition, much less a doped peroxide composition.

Accordingly, because the references fail to teach or suggest a homogeneous, boron-doped peroxide, reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1-3 and 8-11 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by GB 1580248. This rejection is respectfully traversed.

Claim 1 recites, in pertinent part, a homogeneous, boron-doped alkaline earth peroxide.

GB 1580248 relates to coating agents and methods for coating seeds wherein calcium peroxide is used. GB 1580248 discloses that the coating agents can contain additives such as fertilizers, fungicides, fillers or boron derivatives. However, GB 1580248 merely discloses a physical mixture of components. GB 1580248 fails to disclose that the boron is incorporated in the calcium peroxide as a dopant.

As is known to one with ordinary skill in the art, a dopant is an impurity that is added in small amounts to a pure substance to change its properties. As set forth in Chapter 1 of Volume 1 of Silicon Processing for the VLSI Era (Lattice Press, 1986), a dopant is an impurity element that is incorporated into a semiconductor crystal in low concentrations in order to alter the properties of the semiconductor. The process of introducing dopants into a semiconductor is called doping. Further, boron is a common dopant.

Because GB 1580248 does not disclose a boron-doped alkaline earth peroxide, the reference fails to teach each and every element of the claimed invention. Reconsideration and withdrawal of this rejection are respectfully requested.

Rejections under 35 U.S.C. § 103

The rejection of Claims 1-3 under 35 U.S.C. § 102(b) as anticipated by, or in the alternative under 35 U.S.C. § 103(a) as obvious over, JP 61-033104 is respectfully traversed.

Japanese patent publication number JP 61-033104 discloses a mixture in which a boron compound is blended with a peroxide to provide an algae-killing detergent. As requested by the Examiner, an English translation of JP 61-033104 is submitted herewith. The abstract makes clear that the boron containing compound is a main component in the blend. In JP 61-033104, boric acid and eight additional boric acid salts are used as the boric compound. In an example, a mixed solution comprises 200g of hydrogen peroxide and 20g of **each** boric compound (corresponding to a mixed solution comprising about 47 wt.% of the boric compound). In contrast, the boron content of the homogenous, boron-doped alkaline earth peroxide composition of the present invention is from 0.5-5 wt.%. This is not taught by JP 61-033104, which discloses a "mixture of a super saturated boric compound" wherein the concentration of the boron compound is provided in an amount significantly greater than 5 wt.%.

Furthermore, the claims require that the composition be homogeneous which excludes a mere mixture of solutions. Moreover, the reference describes the detergent composition as a solution which is different than the present claims which relate to a boron-doped alkaline earth peroxide. A doped compound is not a solution, but is instead a compound wherein the doping element is

incorporated in the crystal lattice of the base material. Because the claims are neither anticipated by or obvious in view of JP 61-033104, reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1-11 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 6,193,776 to Doetsch et al. ("Doetsch") or U.S. Patent No. 5,395,419 to Farone et al. ("Farone") in view of GB 1575792. The Office Action alleges that it would have been obvious to treat the peroxygenated compounds of either Doetsch or Farone with boron as taught by GB 1575792. This rejection is respectfully traversed.

Doetsch discloses homogeneous calcium/magnesium peroxides as oxygen sources as well as their use in the treatment of biomaterials. Farone discloses peroxides that are stabilized with phosphate ions and which may then be mixed with other additives to provide fertilizers to treat plant media. As admitted in the Office Action, Doetsch and Farone each fail to mention boron.

GB 1575792 fails to remedy the deficiencies of Doetsch and Farone. GB 1575792 discloses a peroxygenated compound having a coating comprising a boron compound formed thereon. GB 1575792 fails to teach a homogeneous peroxide, much less a boron-doped peroxide, as required by the claims. Rather, by suggesting a solid coating comprising a boron compound, GB 1575792 *teaches away* from the present invention, which requires that the boron be homogeneously doped throughout the peroxide (i.e., not merely formed on a surface thereof).

Each of the pending claims require that the peroxide be homogeneous, meaning that it has a uniform structure or composition throughout, and that the boron be doped within the peroxide (i.e., the boron-doped peroxide has boron in the crystal lattice of the peroxide). The combination of these features is neither taught nor suggested by the references. Accordingly, the cited combination of references fails to teach or suggest each and every element of the claimed invention. Reconsideration and withdrawal of this rejection are respectfully requested.

CONCLUSION

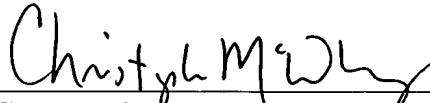
In view of the foregoing, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #038715.53046US).

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Respectfully submitted,



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